

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 2166-002-04	FOR FURTHER ACTION <small>see Form PCT/ISA/220 as well as, where applicable, item 5 below.</small>	
International application No. PCT/US04/24860	International filing date (<i>day/month/year</i>) 29 July 2004 (29.07.2004)	(Earliest) Priority Date (<i>day/month/year</i>) 29 July 2003 (29.07.2003)
Applicant BANASKY, HOWARD V.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the Report

a. With regard to the language, the international search was carried out on the basis of:

- ☒ the international application in the language in which it was filed.
☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box No. II)

3. ☐ Unity of invention is lacking (See Box No. III)

4. With regard to the title,

- ☒ the text is approved as submitted by the applicant.
☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

- ☐ the text is approved as submitted by the applicant.
☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

- a. the figure of the drawings to be published with the abstract is Figure No. 1
☒ as suggested by the applicant.
☐ as selected by this Authority, because the applicant failed to suggest a figure.
☐ as selected by this Authority, because this figure better characterizes the invention.
- b. ☐ none of the figures is to be published with the abstract.

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Box IV TEXT OF THE ABSTRACT (Continuation of Item 5 of the first sheet)

The technical features mentioned in the abstract do not include a reference sign between parentheses (PCT Rule 8.1(d)).

NEW ABSTRACT

The present invention provides a pressure vessel (18) for exerting pressure on a repair (12) to a component made of composite materials to cure the repair in the field. The pressure vessel includes a body having a chamber (24) for receiving the repair to the component, a portal (28) operable to permit a heating element (20) of a heater (16) located inside the chamber to be coupled with a power source (22) located outside the chamber to power the heating element, and a pump (26) operable to pressurize the chamber. By pressurizing the chamber, the pressure vessel may exert pressure on a repair placed inside the chamber that exceeds 14.7 psi, and thus, provide a better cure in the field to produce a stronger repair. Furthermore, the pressure vessel may be more easily transported from one location in the field to another than an autoclave.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B29C 70/44, 73/24

US CL : 156/94, 285, 286, 385; 425/11, 389, 405.1; 432/200, 250; 219/403, 440; 220/288; 422/295

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 156/94, 285, 286, 385; 425/11, 389, 405.1; 432/200, 250; 219/403, 440; 220/288; 422/295

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,863,452 A (HARSHBERGER, JR et al) 26 January 1999 (26.01.1999), see figures 1 and 3; column 3, lines 23-36; column 7, lines 11-25 and column 8, lines 1-13.	1-6, 11, 13, 14, 17
—		7-10, 12, 15, 16, 23
Y		
Y	US 4,576,776 A (ANDERSON) 18 March 1986 (18.03.1986), see figures 1 and 3; and column 8, lines 45-48.	7-9
Y	US 4,447,402 A (COX) 08 May 1984 (08.05.1984), see figures 1-5.	12
Y	US 4,771,162 A (SCHATZ et al) 13 September 1988 (13.09.1988), see figure 2 and column 6, lines 11-20.	8, 9
Y	US 5,345,397 A (HANDEL et al) 06 September 1994 (06.09.1994), see figure 1 and column 5, lines 26-47.	10, 15, 16
X	US 6,017,484 A (HALE) 25 January 2000 (25.01.2000), see figures 4, 6, 8; column 5, lines 41-47; column 6, lines 44-63; column 8, lines 1-10; and column 10, lines 28-50.	18-21, 24
—		22, 23
Y		



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

02 December 2005 (02.12.2005)

Date of mailing of the international search report

15 FEB 2006

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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,435,242 B1 (REIS et al) 20 August 2002 (20.08.02), see figure 1 and column 2, lines 30-36.	22
A	US 5,236,646 A (COCHRAN et al) 17 August 1993 (17.08.1993), see figures 1 and 3.	1